

CLAIMS

What is claimed is:

1. A method for reducing the amount of mercury affixed to a sorbent, the method comprising:
 - providing an amount of sorbent, at least a portion of the amount of sorbent comprising particulates having mercury compounds affixed to the particulates; and
 - exposing the amount of sorbent to heated flowing air until mercury compounds are liberated from at least some of the particulates.
2. The method of claim 1 wherein:
 - the amount of sorbent is maintained in the heated flowing air until the sorbent reaches a temperature of at least 700°F (372°C).
3. The method of claim 1, further comprising:
 - measuring an in process temperature of the sorbent when the sorbent is exposed to the heated flowing air;
 - removing at least a portion of the sorbent being exposed to the heated flowing air when the measured in process temperature reaches at least 700°F (372°C);
 - thereafter providing a second amount of sorbent, at least a portion of the second amount of sorbent comprising particulates having mercury affixed to the particulates; and
 - thereafter maintaining the sorbent in the heated flowing air until the sorbent reaches a temperature of at least 700°F (372°C).
4. The method of claim 1, wherein the step of exposing the sorbent to heating flowing air comprises the steps of:
 - providing a metal media having openings;
 - passing heated flowing air through the openings; and
 - depositing the sorbent on the metal media.

5. The method of claim 4 wherein:
the openings are 10 microns or less.
6. The method of claim 4 wherein:
the flowing air is passed through the openings at greater than 0 to about 10 cubic feet (0.28 cubic meters) per minute.
7. The method of claim 1, wherein the sorbent is activated carbon.
8. The method of claim 7 wherein:
the amount of activated carbon is maintained in the heated flowing air until the activated carbon reaches a temperature in the range of 700°F (372°C) to 1000°F (538°C).
9. The method of claim 1, further comprising:
reusing the sorbent in a mercury reduction process after mercury compounds are liberated from at least some of the particulates.
10. The method of claim 1 further comprising:
preheating the amount of sorbent to a temperature of at least 300°F (148°C) before exposing the amount of sorbent to the flowing air.

11. A method for reducing the amount of mercury adsorbed to activated carbon, the method comprising:

providing an amount of activated carbon, at least a portion of the activated carbon having adsorbed mercury compounds; and

exposing the activated carbon to heated flowing air until the activated carbon reaches a temperature of at least 700°F (372°C).

12. The method of claim 11, wherein the step of exposing the activated carbon to heating flowing air comprises the steps of:

providing a metal media having openings;

passing heated flowing air through the openings; and

depositing the activated carbon on the metal media.

13. The method of claim 11 wherein:

the openings are 10 microns or less.

14. The method of claim 11 wherein:

the flowing air is passed through the openings at greater than 0 to about 10 cubic feet (0.28 cubic meters) per minute.

15. The method of claim 11 wherein:

the amount of activated carbon is maintained in the heated flowing air until the activated carbon reaches a temperature in the range of 700°F (372°C) to 1000°F (538°C).

16. The method of claim 11, further comprising:

reusing the activated carbon in a mercury reduction process after mercury compounds are liberated from at least some of the activated carbon.

17. The method of claim 11 further comprising:

preheating the amount of activated carbon to a temperature of at least 300°F (148°C) before exposing the amount of activated carbon to the flowing air.

18. A method for reducing the amount of mercury in an amount of particulate matter including fly ash and activated carbon, the method comprising:
providing an amount of particulate matter including fly ash and activated carbon, at least a portion of the fly ash or activated carbon having adsorbed mercury compounds; and
exposing the amount of particulate matter to heated flowing air until mercury compounds are liberated from at least some of the particulate matter.

19. The method of claim 18 wherein:
the particulate matter is exposed to heated flowing air until the particulate matter reaches a temperature of at least 700°F (372°C).

20. The method of claim 18 wherein:
the particulate matter is exposed to heated flowing air until the particulate matter reaches a temperature in the range of 700°F (372°C) to 1000°F (538°C).